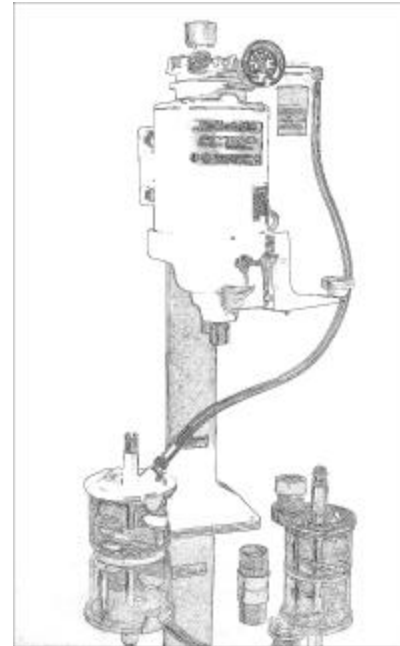


**Combination Unit / Power Mixer Plus / Pro Blend**

Vacuum (Red indicates any type of unit otherwise only Combination / power mixer plus)

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1. Clogged Filter (or trap cap) in hose or elbow on oiler
2. Oil in pump
3. Pump Frozen (No oil?)
4. Water in pump
5. Broken Vacuum Gauge
6. Dirty Pump – Carbon from lack of oil
7. Pump rusty
8. Oiler unit clogged – (gasket may be missing)
9. Tubing leaky
10. Trap cap clogged or wrong filter in place
11. Wrong or bad oil
12. Pump body worn / veins
13. bad oil unit
14. Plaster inside pump (Pro Blend – added a filter in the housing to block stone, Fuel filter Fram G2 / G12 added 8/2003 as a 3<sup>rd</sup> filter close to vacuum pump.)
15. Pump body alignment incorrect
16. Rotor loose
17. Pro Blend only – Gast Pump (rotor failure)



No Power / Power switch problems

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1. Power switch broken
2. Sparks from power switch caused by water in the pump

Burning Smell

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1. Power Switch
2. Rusty
3. Short on micro switch

Motor will not turn

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1. Dirty or rusty pump
2. Starting switch (Not on/off) bad
3. Pro Blend / VPM2 - low vacuum – will not let the motor turn.

4. Pro Blend –coupler wear (sensor not working - poly propylene (gray) coupler only) 2002 changed to new coupler (black nylon)

#### Unit vibrates or makes loud noise

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1. Rust build up in pump
2. Rotor Loose (worn rotor key)
3. Pro Blend – poly propylene coupler wear (gray) coupler only) 2002 changed to new coupler (black nylon)

#### Visible Oil Leak

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1. Oil forced into muffler area
2. Loose connections on tubing/oil jar/fittings
3. No filter in tubing

#### Paddle Slipping / not spinning

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1. Faulty windings
2. Nylon gear worn

#### Smoke

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1. Rusty Pump / Seized

#### Rattle sound coming from Chuck?

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1. Paddle drive nut stripped?

#### Hum from mixer

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1. Pump frozen
2. Oiler clogged

#### Unit gets hot

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1. Oiler clogged
2. Motor seized
3. Pump seized

#### Timer Failure – Pro Blend Only

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1. no news - replace only